

CLAIMS

1. A braze alloy consisting of (wt.-%) 10-15% Cr, 4.5-6% Al, 0.17-0.3% Y, 8-12% Co, 0-4% W, 2.5-5% Ta, 2.0-3.5% B with Cr+Al > 15%, Cr/Al ≤ 3 and Al+Ta > 7.5 %, remainder Nickel and unavoidable impurities.
2. The use of the braze alloy according to claim 1 for brazing onto a Nickel based or a Cobalt based polycrystalline superalloy article.
3. The use of the braze alloy according to claim 1 for brazing onto a Nickel based or a Cobalt based directionally solidified superalloy article.
4. The use of the braze alloy according to claim 1 for brazing onto a Nickel-based or a Cobalt based single crystal superalloy article.
5. The use of the braze alloy according to one of claims 2, 3, and 4 wherein the superalloy article is a gas turbine component.
6. The use of the braze alloy according to claim 1 in the pure form as a paste or a foil or as a blend in a blend braze paste, as a braze tape or as a pre-sintered braze sheet.
7. A pre-sintered braze sheet, braze tape or blend braze paste comprising a mixture of filler material consisting of a nickel or cobalt superalloy and the braze alloy according to claim 1.
8. The pre-sintered braze sheet, braze tape or blend braze paste according to claim 7, wherein the mixture comprises at least 30 wt.-% braze alloy.
9. The pre-sintered braze sheet, braze tape or blend braze paste according to claim 7 or 8, wherein the accordingly produced pre-sintered braze sheet contain no binder.

10. A method of repairing a nickel-based or a cobalt-based superalloy article
(1) comprising the step of high temperature vacuum brazing of the article
(1) with the pure braze alloy according to claim 1 as a paste or a foil.

11. A method of repairing a nickel-based or a cobalt-based superalloy article
(1) comprising the step of brazing the article (1) with a pre-sintered braze
sheet, braze tape or blend braze paste according to claim 7.